

REMARKS

Claims 1-18 are pending in this application. Claims 6, 8, 9, and 13-14 are withdrawn from consideration. By this Amendment, claims 1, 10 and 12 are amended and claim 2 is canceled. Reconsideration based on the above amendments and the following Remarks is respectfully requested.

I. Claim Objections

Claims 10-12 are objected to for informalities.

Claim 10 is amended. Withdrawal of the objection to claim 10 is respectfully requested.

Claim 12 is amended to recite insulated instead of keeping away. However, claim 12 was not amended to delete the term "included". According to the present invention, electrodes 30 is included in the dielectric multi-layer film 20a.

Accordingly, withdrawal of the objections to claims 10 and 12 is respectfully is requested.

II. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-3, 5, 7, 10 and 11 under 35 U.S.C. §102(e) as anticipated by U.S. 6,320,206 to Coman; claims 16-17 are rejected under 35 U.S.C. §103(a) as unpatentable over Coman; and claims 4 and 12 are rejected under 35 U.S.C. §103(a) as unpatentable over Coman in view of U.S. 4,766,471 to Ovshinsky et al. These rejections are respectfully traversed.

Claim 1

The applied art does not teach, disclose or suggest a first electrode formed of a pair of electro-layers used to apply electrons to the light-emitting layer and a second electrode formed of a pair of electrode layers used to apply holes to the light-emitting layer, as claimed in claim 1.

Instead, Coman discloses a first mirror stack 14 consisting of dielectric distributed bragg reflectors DBR of high reflectivity attached to a substrate. Mirror stack can consist of material such as dielectric, semiconductor and metal. The DBR consist of stack pairs low loss dielectrics where one of the pair materials has a low index of a refraction and one has a high index of a refraction. Examples of DBR mirrors are based on paired layers of silicon dioxide with titanium oxide, zirconium oxide, tantalum oxide or hafrium oxide. A mirror stack 20 is attached to the outdoor electronic structure 18 on a side opposing the first mirror stack 14. The second mirror stack 20 and n- and p-type 18a, 18b layers of the active region 18 maybe patterned and etched to provide areas for ohmic contacts. Thus, there is no teaching, disclosure or even suggestion for the first and second electrode to be formed of a pair of electrode layers used to apply electrons to the light-emitting layer and apply holes to the light-emitting layer, respectively.

The above recited features provide the advantage of increasing the number of electrons and holes contributing to the light emission in the light-emitting layer 24, thereby raising the light emission sufficiency. Neither the features of the claimed invention nor the advantages provided thereof, are taught or discussed in Coman. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

Claim 10

The applied art does not teach, disclose or suggest at least a first electric charge transport layer disposed on one side of the light-emitting layer and a second electric charge transport layer disposed on the other side of the light-emitting layer, as claimed in claim 10.

The Examiner asserts that the first electric charge transport layer is at least the bottom portion of layer 18b and the second electric charge transport layer is at least an upper portion of layer 18a disposed on the other side of the light-emitting layer. However, Applicants disagree with the Examiner's reading of the applied art. Specifically, active region 18 is

comprised of n layers 18a and p layers 18b. However, according to the present invention, electron transport layer 22 and hole transport layer 26 are separate layers which are formed on the light-emitting layer. Thus, the claimed invention is distinguishable from the teachings of Coman.

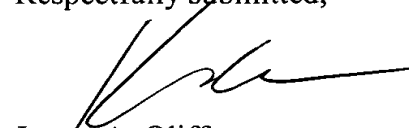
Accordingly, the features of the claimed invention are not shown in the applied art. Withdrawal of the rejection of the claims under 35 U.S.C. §§102 and 103 is respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Petition for Extension of Time

Date: February 27, 2004

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